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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,676	04/12/2006	Takayuki Kitami	272635US2XPCT	7644
22850	7590	05/11/2007		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER YUN, JURIE	
			ART UNIT	PAPER NUMBER
			2882	
			NOTIFICATION DATE	DELIVERY MODE
			05/11/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/535,676

Applicant(s)

KITAMI, TAKAYUKI

Examiner

Jurie Yun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>9/15/05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The abstract of the disclosure is objected to because it consists of more than 150 words. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Shapiro et al. (USPN 4,225,787).
4. With respect to claim 1, Shapiro et al. disclose an X-ray apparatus having a rotary anode X-ray tube (Fig. 1, 12) comprising an anode target (56) arranged in a vacuum envelope (14), a rotary body (50) mechanically coupled to the anode target and configured to rotate together with the anode target, and a fixed shaft (44) supporting the rotary body, allowing the rotary body to rotate on a bearing (42); a stator coil (88) generating a rotating magnetic field for rotating the rotary body of the rotary anode X-ray tube; and a drive-power-supply device (92) controlling a drive power to be supplied to the stator coil, the X-ray apparatus comprising a memory unit storing a plurality of drive conditions for controlling the drive power to be supplied to the stator coil (column 9, line 32 - column 12, line 13); and a control unit selecting one of the drive conditions stored in

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the memory unit and causing the drive-power-supply device to output drive power that matches said one drive condition (column 9, line 32 - column 12, line 13).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shapiro et al. (USPN 4,225,787) as applied to claim 1 above, and further in view of Koichi (JP 05-114497) - based on machine English language translation provided.

7. With respect to claims 2 and 3, Shapiro et al. disclose all of the elements as seen above for claim 1, but do not disclose detecting means for detecting power or current consumed at the stator coil while the drive power is being applied to the stator coil; comparing means for determining whether the power or current detected at the detecting means falls within a predetermined range; and power-supply stopping means for stopping supply of power from the drive-power-supply device to the stator coil when the power or current falls outside the predetermined range.

Shapiro et al. disclose monitoring circuit means provided with means for comparing the desired rotational anode speed with the actual rotational anode speed to produce output signals suitable for regulating operation of the x-ray tube and of the induction motor (column 2, lines 58-62). When the actual rotational speed of the anode

disc exceeds the maximum value set by ROM 166, the motor control unit 92 cuts-off the flow of current through the stator coils 88 (column 12, lines 3-13).

Koichi discloses that monitoring anode speed with a photo sensor (which is what Shapiro et al. teach) is complicated (paragraph 0004), and instead discloses detecting means for detecting power or current consumed at the stator coil while the drive power is being applied to the stator coil; comparing means for determining whether the power or current detected at the detecting means falls within a predetermined range; and power-supply stopping means for stopping supply of power from the drive-power-supply device to the stator coil when the power or current falls outside the predetermined range (paragraph 0006 and abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Shapiro et al. to have detecting means for detecting power or current consumed at the stator coil while the drive power is being applied to the stator coil; comparing means for determining whether the power or current detected at the detecting means falls within a predetermined range; and power-supply stopping means for stopping supply of power from the drive-power-supply device to the stator coil when the power or current falls outside the predetermined range, to result in a less complicated mechanism for monitoring X-ray tube performance, as taught by Koichi.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Fiocca et al. (USPN 3,963,930) disclose a closed loop system for monitoring and regulating the power applied to the stator of an induction motor.

Rosenzweig et al. (USPN 5,883,487) disclose a microprocessor which calculates the rotational speed of a rotor based on a feedback signal.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jurie Yun whose telephone number is 571 272-2497.

The examiner can normally be reached on Monday-Friday 8:30-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ed Glick can be reached on 571 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Jurie Yun
Examiner
Art Unit 2882

May 7, 2007